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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,120	09/17/2003	Harald Striegler	2730	4738

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103 East Neck Road
Huntington, NY 11743

EXAMINER

IVEY, ELIZABETH D

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/664,120	STRIEGLER, HARALD	
	Examiner	Art Unit	
	Elizabeth Ivey	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 14, 15 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 16 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>19 September 2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term " reduced to an insignificant extent " in claim 1 is a relative term, which renders the claim indefinite. The term " reduced to an insignificant extent " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and a person of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3-8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,492,029 B1 to Beyrlé in view of U.S. Patent Application 2002/0084263 A1 to Wennemann et al further in view of U.S. Patent 6,517,943 B1 to Beunet et al.

Regarding claims 1, 3 and 4, Beyrlé discloses a cooktop comprising a glass or vitro-ceramic (glass ceramic) pane or panel (column 1 lines 23-28), which may be tempered (column 5 lines 10-15), having an enamel coating comprising glass frit (analogous to flux) and colorant pigments. Pigments may comprise upto 70% of the composition by weight (column 4 lines 45-55) leaving 30% or less by weight for the frit or flux. Beyrlé discloses that graphite along with the pigments increases opacity or (observation blocking). Beyrlé does not explicitly disclose the glass or glass –ceramic to be transparent but discloses any glass substrate, which may be used for a cooktop (column 1 lines 20-30). Wennemann discloses a transparent colorless glass –ceramic bulk material or a glass panel made of prestressed colorless glass material (abstract); which provides a cooking surface (page 1 paragraph 0002). Since Wennemann’s panel provides a cooking surface and Beyrlé’s disclosure includes cooktops, it would be obvious to one having

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ordinary skill in the art at the time of the invention to utilize Wennemann's panel as Beyrlé's cooktop substrate. Beyrlé discloses the frit may be any known glass frit based on oxides chosen from among the oxides of silicon, lead zinc, bismuth, titanium, zirconium, sodium, boron, lithium, potassium, calcium, aluminum, tin, vanadium, molybdenum, magnesium, etc. and the pigments may be chosen from among the oxides of metals such as chromium, copper, iron, cobalt or nickel etc. or from among the chromates of copper. Beyrlé does not explicitly disclose an IR permeable undercoat and Wennemann discloses an IR permeable undercoat but not of enamel. However, Beunet discloses a decorative coating comprising a glass frit having a thermal expansion coefficient of $30-40 \times 10^{-7} \text{ K}^{-1}$ (column 2 lines 55-60) (column 4 line 20); which may be a borosilicate (column 4 lines 20-25) glass. Beunet discloses a softening point of at least 750°C , and therefore stability upto, 750°C . Beunet discloses that a borosilicate glass is generally used to achieve said characteristics for use in such glass frit applications (column 4 lines 23-25). Therefore, it would be obvious to one having ordinary skill in the art at the time of the invention to utilize the borosilicate glass of Beunet as the frit disclosed by Beyrlé and employ it as an undercoat as in Wennemann. Because the prior art exemplifies the applicant's claimed composition and structure in relation to the flux or frit, the claimed physical property relating to the IR permeability is inherently present in the prior art.

Regarding claims 5 and 6, Beyrle discloses the enamel as a powder form comprising pigments (column 3 lines 42-44). Beyrle discloses a medium for coating but is silent as to the ratio of the powder to medium. However, it would have been obvious to a person having ordinary skill in the art at the time of the invention to adjust the ratio for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In *re Boesch*, 617 F.2d 272, 205. Additionally, claims 5 and 6 are product by process claims wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See *MPEP 2113*. As such, the process limitation within claims 5 and 6 do not provide patentable distinction over the prior art.

Regarding claims 7 and 8, Beyrlé discloses that the enamel may be composed of a glass frit and colorant pigments allowing for a mixture of more than one pigment (column 1 lines 40-45).

Regarding claim 14, because the prior art exemplifies the applicant's claimed composition and structure in relation to the glass or glass ceramic panel and the enamel coating, the claimed physical properties relating to the bending strength and impact resistance are inherently present in the prior art.

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Claims 1, 3-8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,492,029 B1 to Beyrlé in view of U.S. Patent 5,070,045 to Comte et al. further in view of U.S. Patent 6,517,943 B1 to Beunet et al.

Regarding claims 1, 3 and 4, Beyrlé discloses a cooktop comprising a glass or vitro-ceramic (glass ceramic) pane or panel (column 1 lines 23-28), which may be tempered (column 5 lines 10-15), having an enamel coating comprising glass frit and colorant pigments. Pigments may comprise up to 70% of the composition by weight (column 4 lines 45-55) leaving 30% or less by weight for the frit or flux. Beyrlé does not explicitly disclose the glass or glass – ceramic to be transparent but Comte discloses a transparent glass – ceramic and designates its use for cooktop plates (column 2 lines 21-25). It would therefore be obvious to one having ordinary skill in the art at the time of the invention to utilize a transparent glass ceramic as in Comte with the disclosure of Beyrlé. Beyrlé discloses the frit may be any known glass frit based on oxides chosen from among the oxides of silicon, lead, zinc, bismuth, titanium, zirconium, sodium, boron, lithium, potassium, calcium, aluminum, tin, vanadium, molybdenum, magnesium, etc. and the pigments may be chosen from among the oxides of metals such as chromium, copper, iron, cobalt or nickel etc. or from among the chromates of copper. Beyrlé does not explicitly disclose an IR permeable undercoat but Beunet discloses a decorative coating comprising a glass frit having a thermal expansion coefficient of $30-40 \times 10^{-7} \text{ K}^{-1}$ (column 2 lines 55-60), which may be a borosilicate (column 4 lines 20-25). Beunet discloses a softening point of at least 750°C, and therefore stability up to, 750°C. Beunet discloses that a borosilicate glass is generally used to achieve said characteristics for use in such glass frit applications (column 4

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lines 23-25). Therefore, it would be obvious to one having ordinary skill in the art at the time of the invention to utilize the borosilicate glass of Beunet as the frit disclosed by Beyrlé. Because the prior art exemplifies the applicant's claimed composition and structure in relation to the flux or frit, the claimed physical property relating to the IR permeability is inherently present in the prior art.

Regarding claims 5 and 6, Beyrle discloses the enamel as a powder form comprising pigments (column 3 lines 42-44). Beyrle discloses a medium for coating but is silent as to the ratio of the powder to medium. However, it would have been obvious to a person having ordinary skill in the art at the time of the invention to adjust the ratio for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In *re Boesch*, 617 F.2d 272, 205. Additionally, claims 5 and 6 are product by process claims wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *See MPEP 2113*. As such, the process limitation within claims 5 and 6 do not provide patentable distinction over the prior art.

Regarding claims 7 and 8, Beyrlé discloses that the enamel may be composed of a glass frit and colorant pigments allowing for a mixture of more than one pigment (column 1 lines 40-45).

Regarding claim 14, because the prior art exemplifies the applicant's claimed composition and structure in relation to the glass or glass ceramic panel and the enamel coating, the claimed physical properties relating to the bending strength and impact resistance are inherently present in the prior art.

Claims 15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,492,029 B1 to Beyrlé in view of U.S. Patent Application 2002/0084263 A1 to Wennemann et al further in view of U.S. Patent 6,517,943 B1 to Beunet et al.

Regarding claim 15 and 18 Beyrlé discloses a cooktop comprising a glass or vitro-ceramic (glass ceramic) pane or panel (column 1 lines 23-28), which may be tempered (column 5 lines 10-15), having an enamel coating comprising glass frit (analogous to flux) and colorant pigments. Pigments may comprise upto 70% of the composition by weight (column 4 lines 45-55) leaving 30% or less by weight for the frit or flux. Beyrlé discloses that graphite along with the pigments increases opacity or (observation blocking). Beyrlé does not explicitly disclose the glass or glass –ceramic to be transparent but discloses any glass substrate, which may be used for a cooktop (column 1 lines 20-30). Wennemann discloses a transparent colorless glass –ceramic bulk material or a glass panel made of prestressed colorless glass material (abstract); which provides a cooking surface (page 1 paragraph 0002). Since Wennemann's panel provides a cooking surface and Beyrlé's disclosure includes cooktops, it would be obvious to one having ordinary skill in the art at the time of the invention to utilize Wennemann's panel as Beyrlé's cooktop substrate. Beyrlé discloses the frit may be any known glass frit based on oxides chosen

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from among the oxides of silicon, lead zinc, bismuth, titanium, zirconium, sodium, boron, lithium, potassium, calcium, aluminum, tin, vanadium, molybdenum, magnesium, etc. and the pigments may be chosen from among the oxides of metals such as chromium, copper, iron, cobalt or nickel etc. or from among the chromates of copper. Beyrlé does not explicitly disclose an IR permeable undercoat and Wennemann discloses an IR permeable undercoat but not of enamel. However, Beunet discloses a decorative coating comprising a lead free glass frit having a thermal expansion coefficient of $30-40 \times 10^{-7} \text{ K}^{-1}$ (column 2 lines 55-60 and Table 2) and a softening point of at least, and therefore stability upto, 750°C (column 4 line 20); which may be a borosilicate (column 4 lines 20-25) glass. Beunet discloses that a borosilicate glass is generally used to achieve said characteristics for use in such glass frit applications (column 4 lines 23-25). Therefore, it would be obvious to one having ordinary skill in the art at the time of the invention to utilize the borosilicate glass of Beunet as the frit disclosed by Beyrlé and employ it as an undercoat as in Wennemann. Because the prior art exemplifies the applicant's claimed composition and structure in relation to the flux or frit, the claimed physical property relating to the IR permeability is inherently present in the prior art.

Regarding claim 17, because the prior art exemplifies the applicant's claimed composition and structure in relation to the glass or glass ceramic panel and the enamel coating, the claimed physical properties relating to the bending strength and impact resistance are inherently present in the prior art.

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Regarding claim 19, claim 19 is a product by process claim wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *See MPEP 2113*. As such, the process limitation within claim 19 does not provide patentable distinction over the prior art.

Regarding claim 20, Beyrlé discloses enamels may be used as decorative layers (column 1 lines 31-33) and that colorant pigments are used in the coating (column 1 lines 42-44).

Allowable Subject Matter

Claims 16 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Prior art of record does not disclose pigment content of 80-95 weight percent in an enamel paint on a cooktop having the exact limitations of claim 15 or a frit having the exact composition of claim 21 in an enamel paint on a cooktop having the exact limitations of claim 15.

Response to Arguments

Examiner acknowledges applicant's amendment to the specification, cancellation of claims 9-13, amendment of claims 1, 6 and 14 and addition of claims 15-21.

Examiner has confirmed that the priority document indicated as missing is currently in the application file.

Examiner withdraws the 35 U.S.C. 112 first paragraph rejections of claims 9-13 in view of the cancellation of claims.

Examiner withdraws the 35 U.S.C. 112 second paragraph rejection of claim 1 regarding the use of the terms prestressed special glass in view of the arguments and prior art submitted by applicant.

Regarding the 35 U.S.C. 103 rejections, applicant's arguments filed September 19, 2005 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding the pigment content of Beyrle, Beyrle discloses a pigment content upto 70% which overlaps the claimed range.

Regarding the percent pigment of Buenet, only the frit component is indicated as the frit component of the coated glass-ceramic of Beyrle.

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Regarding the viewing blocking properties, the pigmentation of Beyrle provides viewing blocking (opacity) properties as indicated above in the 35 U.S.C. 103 rejections.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Ivey whose telephone number is (571) 272-8432. The examiner can normally be reached on 7:00- 4:30 M-Th and 7:00-3:30 alt. Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571)272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elizabeth D. Ivey


DEBORAH JONES
SUPERVISORY PATENT EXAMINER